



# South Mountain Transportation Corridor Study

Citizens Advisory Team  
Technical Report Summary

## Draft Visual Resources

### ***Why study visual resources in the Environmental Impact Statement (EIS)?***

A project of the magnitude of the proposed South Mountain Freeway clearly has the potential to alter the visual setting surrounding the alignment. The Federal Highway Administration (FHWA) considers visual effects of highways to be an important part of project development. The agency's guidance for preparing visual impact assessments states that "the public nature and visual importance of our highways require that visual impacts—positive as well as negative—be adequately assessed and considered when a highway project is developed". The FHWA process includes assessing the visual impacts for the traveler from the highway as well as the views of the highway from the surrounding area. The assessment of the impacts to visual resources is required by several legislative acts including the National Environmental Policy Act (NEPA), the Historic Preservation Act, and Section 4(f) of the Department of Transportation Act.

### ***What kind of impacts would occur from construction?***

The overall visual impacts of construction involve activities such as; excavation, soil stockpiling, crane tower placement and use, equipment and materials storage, and falsework. Certain views during the construction period would be altered by the presence of construction equipment and emerging freeway facilities. A project like the South Mountain Freeway could also result in substantial excavation and cuts through hillside and mountainside areas. Substantial cuts, if not treated properly, could be very visible over a long period of time.

### ***How do the action alternatives differ in construction-related impacts?***

All action alternatives would result in extensive and long-ranging construction activities. For a project of this magnitude, most likely construction will be sequenced to complete certain segments of the freeway over a multiyear period. Among the action alternatives currently being studied, no distinctive difference in construction-related impacts are anticipated.

### ***What kinds of freeway operational impacts (post-construction) would occur?***

Impacts on the visual setting would occur from all of the proposed action alternatives by the addition of project facilities. By nature, introducing a large, linear project could alter/disrupt the visual quality and character through the surrounding landscapes where no such project existed before.

The increasing number of residences in the Western Section of the Study Area would be sensitive to changes in the mostly rural areas, which is transitioning towards a more suburban setting. The freeway also could create a visual 'divide' among communities if not carefully planned.

In the Eastern Section, the large number of residents in neighborhoods north of and adjacent to the proposed alignment along Pecos Road would make this part of the Study Area sensitive to the addition of a transportation corridor. However, unlike the action alternatives in the Western Section, the E1 Alternative would not split the Ahwatukee community but instead, would 'hug' the northern boundaries of the Gila River Indian Community (GRIC). As with other similar cases



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in the valley, freeways bordering tribal lands contribute to an appealing visual demarcation between primarily undeveloped and agricultural tribal lands and suburban/urban development.

Among the action alternatives currently being studied, no distinctive difference in operational-related impacts are anticipated. Change in visual quality and character would be similar in magnitude among the action alternatives. In the relatively flat landscape of the Study Area (with the main exception being through the southern side of the South Mountain Park/Preserve), distances of about one half-mile would provide some level of buffering from much of the adverse visual impacts of the proposed action.

### ***What if the project was not constructed?***

The No Action Alternative would not result in any direct change in visual character or quality because it would not involve freeway construction and operation. Over time, the visual character and quality of the Study Area would be expected to change because of pressure from the greater Phoenix metropolitan area's increasing urban development. However, not constructing the project should not result in more or less change in the visual setting that would eventually develop.

If the project is not constructed, there would also be no construction road cuts at the southwestern end of South Mountain Park/Preserve and the existing, relatively undisturbed setting in the steep landscape would be retained.

### ***Are there any specific and/or unique impacts from the build alternatives?***

There are two specific areas regarding potential visual impacts warranting further discussion.

- For any of the action alternatives, large system-to-system traffic interchanges would be constructed at I-10 at its existing interchange with the Santan Freeway and at one of three locations along I-10 in the Western Section; 55th Avenue, 71<sup>st</sup> Avenue, or the Loop 101 (Agua Fria Freeway) interchange at I-10. Any of these interchanges would be a dominant vertical feature in the area. Because they would be 'new' interchanges, the I-10 connections at 55<sup>th</sup> or 71<sup>st</sup> avenues would cause a greater impact on the visual environment than the action alternatives that would connect to the existing I-10 system interchanges at the Santan and Agua Fria Freeways. Because of expected interchange size, the structures could become the dominant object on the horizon most everywhere within a 0.5-mile radius.
- In the Eastern Section, the E1 Alternative as currently proposed would require construction of two to three large road cuts through ridge lines at the south and southwestern portions of the South Mountains bordering the GRIC. As exists today, the ridge lines are in a natural, largely undisturbed setting within a park/preserve (for the most part) that is valued for its natural setting so close to an urban environment. These cuts without appropriate mitigation would substantially alter the visual setting of the area.



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### ***What can be done to reduce construction impacts?***

ADOT will consider many factors when looking to reduce construction-related impacts. For example, during construction, locating equipment staging areas and material stockpiles near existing industrial areas would prevent these areas from becoming prominent features in the landscape. Rather, they would blend in with the visual setting established by those land uses.

### ***What can be done to reduce visual resource impacts once the freeway is operating?***

ADOT will consider many factors when looking to reduce operational-related impacts. Some of these measures that could reduce the impact to visual resources would primarily be incorporated during the design phase to assure the final project minimizes impacts. Some of the measures that could be part of the design process include:

- Using vegetative buffers to screen views both of the freeway and from the freeway.
- Leaving rock outcrops in place where possible.
- Incorporating saguaros, mature native trees, and large shrubs in visually sensitive or critical roadway areas.
- Incorporating texture and color treatments and patterning on structures.
- Evaluating the use of earth colors for lighting standards, overpasses, abutments, retaining and screen walls, and sound barriers.
- Possible use of strategic gaps in plantings to frame positive views.
- Incorporating characteristics of the adjacent natural rock features into the newly exposed rock faces.
- Evaluation of using simple structural systems for concrete bridges and overpass to provide greater unification to a visually complex landscape.

### ***Are the conclusions presented in this summary final?***

It is quite likely that quantitative findings relative to impacts are subject to change. The reasons for future changes which will be presented to the public during the Draft EIS, Final EIS and Final Design stages are based on the following:

- Refinement in design features through the design process.
- Updated aerial photography as it relates to rapid growth in the Western Section of the Study Area.
- On-going communications with the City of Phoenix regarding measures to minimize harm to South Mountain Park/Preserve.
- On-going communications with GRIC in regards to granting permission to study action alternatives on GRIC lands.
- Potential updates to traffic forecasts as updated regularly by MAG.



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- Potential updates with regards to the special 2005 survey to augment the 2000 Census.
- As design progresses, cost estimates for construction, right-of-way acquisition, relocation and mitigation will be updated on a regular basis.

However, even with these factors affecting findings, it is anticipated the affects would be equal among the alternatives and consequently impacts would be comparatively the same. This assumption would be confirmed if and when such changes were to occur.

### ***As a member of the Citizens Advisory Team, how can you review the entire technical report?***

The complete technical report is available for review by making an appointment with Mike Bruder or Ralph Ellis at 602-712-7545.